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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,512	01/06/2004	Tatsuya Ito	113112.01	3327

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, VA 22320

EXAMINER

MRUK, GEOFFREY S

ART UNIT	PAPER NUMBER
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2853

MAIL DATE	DELIVERY MODE
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04/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/751,512	ITO ET AL.	
	Examiner	Art Unit	
	Geoffrey Mruk	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 41-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/186,427.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

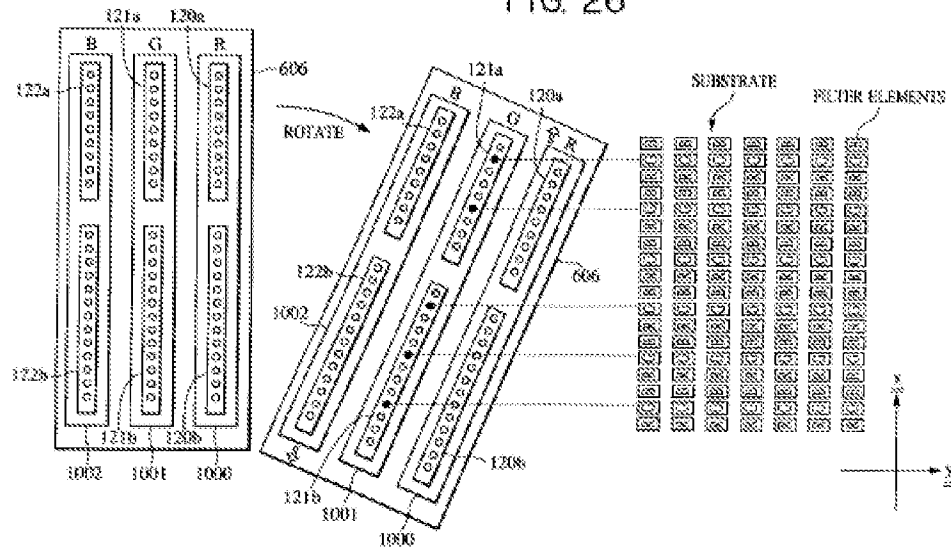
Claims 41-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Shigemura (US 6,667,795 B2).

With respect to claim 41, Shigemura discloses an apparatus (Fig. 14) for manufacturing a color filter (Column 1, lines 15-24), comprising: a plurality of ejection heads (Fig. 26, elements 120a, 120b, 121a, 121b, 122a, 122b) which are arranged perpendicular to a head scan direction (Fig. 26, element x-dir) arranged on a print head (Fig. 26, element 606), each ejection head having a plurality of nozzles (Fig. 16, elements 108) for ejecting a filter material in droplets (Column 1, lines 26-33); the plurality of nozzles (Fig. 16, elements 108) linearly arranged with a constant layout pitch of (D) (Fig. 23, Nozzle Pitch), the plurality of ejection heads are arranged on the print head to form at least one linear row of nozzles (Fig. 16, center line of nozzles, i.e. y direction) arranged perpendicular to the head scan direction (Fig. 26, element x-dir), wherein at least one of the plurality of ejection heads (Fig. 3A, elements 120, 121, 122) comprises a plurality of first nozzles (Fig. 16, elements 108) for ejecting a first type of filter material (Column 10, lines 30-36), a plurality of second nozzles (Fig. 16, elements 108) for ejecting a second type of filter material (Column 10, lines 30-36), and a plurality

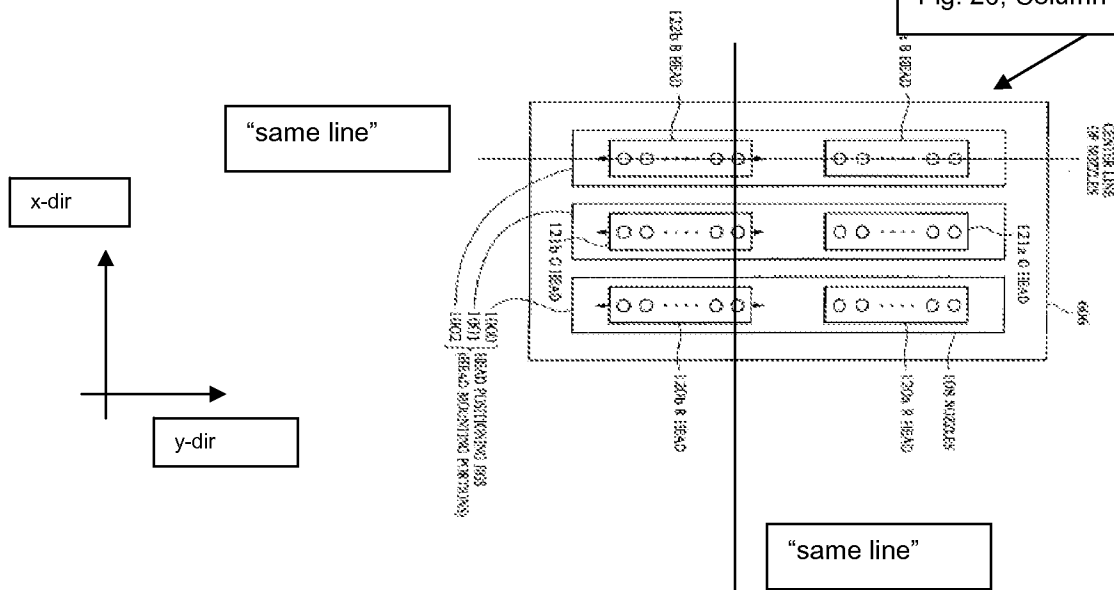
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of third nozzles (Fig. 16, elements 108) for ejecting a third type of filter material (Column 10, lines 30-36), the plurality of first, second, and third nozzles arranged in a same line (Center line of nozzles below, i.e. after rotation).

FIG. 26



Head position after rotation in
Fig. 26; Column 23, lines 21-33



With respect to claim 42, Shigemura discloses an apparatus (Fig. 14) for manufacturing an electroluminescence substrate (Column 1, lines 15-24), comprising: a plurality of ejection heads (Fig. 26, elements 120a, 120b, 121a, 121b, 122a, 122b) which are arranged perpendicular to a head scan direction (Fig. 26, element x-dir) arranged on a print head (Fig. 26, element 606) each ejection head having a plurality of nozzles (Fig. 16, elements 108) for ejecting a filter material in droplets (Column 1, lines 26-33), the plurality of nozzles (Fig. 16, elements 108) linearly arranged with a constant layout pitch of (D) (Fig. 23, Nozzle Pitch), the plurality of ejection heads are arranged on the print head to form at least one linear row of nozzles (Fig. 16, center line of nozzles, i.e. y direction) arranged perpendicular to the head scan direction (Fig. 26, element x-dir), wherein at least one of the plurality of ejection heads (Fig. 3A, elements 120, 121, 122) comprises a plurality of first nozzles (Fig. 16, elements 108) for ejecting a first type of filter material (Column 10, lines 30-36), a plurality of second nozzles (Fig. 16, elements 108) for ejecting a second type of filter material (Column 10, lines 30-36), and a plurality of third nozzles (Fig. 16, elements 108) for ejecting a third type of filter material (Column 10, lines 30-36), the plurality of first, second, and third nozzles arranged in a same line (Fig. 16 above).

With respect to claim 43, Shigemura discloses a method for manufacturing a color filter (Columns 7-11), comprising: scanning a substrate by moving a table (Fig. 14, elements 603, 604) and a plurality of ejection heads (Fig. 26, elements 120a, 120b, 121a, 121b, 122a, 122b) which are arranged perpendicular to a head scan direction (Fig. 26, element x-dir) arranged on a print head (Fig. 26, element 606); and ejecting a

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plurality of types of filter material (Column 10, lines 48-52) in droplets (Column 1, lines 26-33) by the plurality of ejection heads each ejection head having a plurality of nozzles (Fig. 16, elements 108) arranged with a constant layout pitch of (D) (Fig. 23, Nozzle Pitch), the plurality of ejection heads being linearly arranged to form at least one linear row of nozzles (Fig. 16, center line of nozzles, i.e. y direction) which is arranged perpendicular to the head scan direction (Fig. 26, element x-dir), wherein at least one of the plurality of ejection heads (Fig. 3A, elements 120, 121, 122) comprises a plurality of first nozzles (Fig. 16, elements 108) for ejecting a first type of filter material (Column 10, lines 30-36), a plurality of second nozzles (Fig. 16, elements 108) for ejecting a second type of filter material (Column 10, lines 30-36), and a plurality of third nozzles (Fig. 16, elements 108) for ejecting a third type of filter material (Column 10, lines 30-36), the plurality of first, second, and third nozzles arranged in a same line (Center line of nozzles above, i.e. after rotation).

With respect to claim 44, Shigemura discloses a method for manufacturing an electroluminescence substrate (Columns 26-27), comprising: scanning a substrate by moving a table (Fig. 14, elements 603, 604) and a plurality of ejection heads (Fig. 26, elements 120a, 120b, 121a, 121b, 122a, 122b) which are arranged perpendicular to a head scan direction (Fig. 26, element x-dir) arranged on a print head (Fig. 26, element 606); and ejecting a plurality of types of functional layer forming material (Column 27, lines 30-34) in droplets (Column 1, lines 26-33) by a plurality of ejection heads, having a plurality of nozzles (Fig. 16, elements 108) arranged with a constant layout pitch of (D) (Fig. 23, Nozzle Pitch), the plurality of ejection heads being linearly arranged to form at

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least one linear row of nozzles (Fig. 16, center line of nozzles, i.e. y direction) which is arranged perpendicular to the head scan direction (Fig. 26, element x-dir), wherein at least one of the plurality of ejection heads (Fig. 3A, elements 120, 121, 122) comprises a plurality of first nozzles (Fig. 16, elements 108) for ejecting a first type of functional layer forming material (Column 10, lines 30-36), a plurality of second nozzles (Fig. 16, elements 108) for ejecting a second type of functional layer forming material (Column 10, lines 30-36), and a plurality of third nozzles (Fig. 16, elements 108) for ejecting a third type of functional layer forming material (Column 10, lines 30-36), the plurality of first, second, and third nozzles arranged in a same line (Center line of nozzles above, i.e. after rotation).

With respect to claim 45, Shigemura discloses the plurality of first, second and third nozzles (Fig. 16, elements 108) are arranged in one of the linear row of nozzles arranged perpendicular to the head scan direction (Fig. 26 above).

With respect to claim 46, Shigemura discloses the plurality of first, second and third nozzles (Fig. 16, elements 108) are arranged in one of the linear row of nozzles arranged perpendicular to the head scan direction (Fig. 26 above).

With respect to claim 47, Shigemura discloses the plurality of first, second and third nozzles (Fig. 16, elements 108) are arranged in one of the linear row of nozzles arranged perpendicular to the head scan direction (Fig. 26 above).

With respect to claim 48, Shigemura discloses the plurality of first, second and third nozzles (Fig. 16, elements 108) are arranged in one of the linear row of nozzles arranged perpendicular to the head scan direction (Fig. 26 above).

Response to Arguments

Applicant's arguments filed 30 January 2008 have been fully considered but they are not persuasive.

First, the applicant argues "In support of the rejection of pending claims 41-48, the Office Action relies on a portion of Shigemura not relied upon in previous Office Actions. In particular, the Office Action relies on Fig. 26 of Shigemura, and the descriptions of this figure provided in Shigemura at col. 23, lines 21-48, which allegedly teaches a method of rotating head unit 606 shown in Figs. 16 and 26. The Office Action asserts that the rotated head unit 606 is positioned in a manner that teaches all of the features recited claims 41-44. For the following reasons, this assertion is unreasonable."

However, the examiner used the head θ motor (Fig. 13, element 612) in the previous office actions. The head θ motor is used to rotate the head unit (Fig. 13, element 606). Thus, the assertion is reasonable because one of ordinary skill in the art would know how to rotate the head unit, as depicted in Figure 26.

Second, the applicant argues "The Shigemura device even in its rotated state, fails to teach a plurality of first nozzles, a plurality of second nozzles, and a plurality of third nozzles arranged in a same line as positively recited in claims 41-44."

However, given the broad recitation of the claim language and flexibility in the design of Shigemura's apparatus (Fig. 13), specifically elements 603, 610, and 612, one of ordinary skill in the art could change the head scanning relative to the substrate movement (Fig. 26 above). Thus, the claims would have been obvious because a

particular known technique (i.e. X-Y and θ stages) were recognized as part of the ordinary capabilities of one skilled in the art.

Third, the applicant argues “The Office Action improperly ignores these requirements for anticipation by attempting to modify the embodiment of Fig. 16 of Shigemura with the embodiment of Fig. 26, picking and choosing allegedly corresponding features from differing embodiments to attempt to show anticipation by the reference. Clearly, the standard for anticipation is not met with this combination because neither of the embodiments shows the combination of all of the features arranged as in the claim and modifying one embodiment with the other would improperly vitiate positively recited claim terms.”

However, the examiner does not “pick and choose” between different embodiments. Figures 16 and 26 are the same head unit (element 606) in the same first embodiment (Fig. 13). Therefore, Shigemura meets the claimed limitations.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is (571)272-2810. The examiner can normally be reached on Monday-Friday 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. M./
Examiner, Art Unit 2853
4/19/2008

/STEPHEN D. MEIER/

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Supervisory Patent Examiner, Art Unit 2853